In re Application of:

FRESKGARD, et al.

Serial No.: 10/518,056

Filed: October 3, 2005

For: MICROARRAYS DISPLAYING

ENCODED MOLECULES

Art Unit:

Examiner:

Washington, D.C.

June 29, 2006

Docket No.: FRESKGARD=8

Confirmation No.: 8250

INFORMATION DISCLOSURE STATEMENT [IDS]

U.S. Patent and Trademark Office Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314

Sir:

This Information Disclosure Statement is submitted in accordance with 37 C.F.R. 1.97, 1.98, and it is requested that the information set forth in this statement and in the listed documents be considered during the pendency of the above-identified application, and any other application relying on the filing date of the above-identified application or cross-referencing it as a related application.

- 1. This IDS should be considered, in accordance with 37 C.F.R. 1.97, as it is filed:
- [] A. within three months of the filing date of the above-identified national application or within three months of the entry into the national stage of the above-identified international application. See 37 CFR 1.97(b)(1) and (3).
- [X] B. before the mailing date of a first office action on the merits. See 37 CFR 1.97(b).
- [] C. after (A) and (B) above, but before final rejection or allowance, and Applicants have made the necessary certification (box "i" below) or paid the necessary fee (box "ii" below). See 37 CFR 1.97(c) (2).
 - [] i. Counsel certifies that, upon information and

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belief, each item of information listed herein was either (a) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS or (b) was not cited in a communication from a foreign patent office in a counterpart foreign application and was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.

- [] ii. Credit Card Payment Form, PTO-2038, authorizing payment for the fee set forth in 1.17(p), presently believed to be \$180, is attached.
- [] D. after (A), (B) and (C) above, but before payment of the issue fee. Applicant petitions under 37 C.F.R. 1.97(d) for consideration of this IDS. A Credit Card Payment Form, PTO-2038, authorizing payment for the fee set forth in 1.17(p) (1), presently believed to be \$180 is attached. Counsel certifies that, upon information and belief, each item of information listed herein was either (i) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS or (ii) was not cited in a communication from a foreign patent office in a counterpart foreign application and was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.
- [] E. As a submission in accordance with the transitional procedure for limited examination after final rejection pursuant to 37 CFR \$1.129(a). Pursuant to MPEP \$706.07(g), page 700-66, col. 2 (August 2001), this IDS is treated as if filed with a period set forth in 37 CFR \$1.97(b) and considered without the petition and petition fee required by 1.97(d).
- [] F. As a submission with or after a request for continued examination under CFR §1.114, and before the mailing of a first office action on the RCE. See 37 CFR §1.97(b) (4).
 - 2. In accordance with 37 C.F.R. 1.98, this IDS includes a

list (e.g., form PTO-1449) of all patents, publications, or other information submitted for consideration by the office, either incorporated into this IDS or as an attachment hereto. A copy of each document is attached, except as explained below.

- [] While an IDS filed under \$1.97 must contain a "list of all patents, publications or other information submitted for consideration by the Office", see \$1.98(a) (1), the only requirement for the list is that it provide the information set forth in \$1.98(b). There is no requirement that a form PTO-1449 be used (MPEP \$609 merely says that use of this form is "encouraged"). Counsel has used a list provided to him by Applicants, and not transferred the information to a PTO-1449, to avoid the risk of any inadvertent error in transferring the information.
- [X] A. Documents $\underline{\text{HA-IF}}$ are U.S. Patents or U.S. Patent Publications, and hence copies of these documents have not been provided. See 37 CFR 1.98(a)(2)(ii).
- [] B. Documents ______ are deemed substantially cumulative to documents ______, and, in accordance with 1.98(c), only a copy of each of the latter documents is enclosed.
- [X] C. Documents <u>AA-AM, BA-DO, EA-FM, FN-GM and JY</u> were previously cited by or submitted to the Office in the following prior application(s), which are relied upon under 35 U.S.C. 120: 10/175.539.
- Applicants identify these documents by attaching hereto copies of the form PTO-892s and PTO-1449s from the files of the prior applications or a fresh PTO-1449 listing these documents, and request that they be considered and made of record in accordance with 1.98(d). Per 37 CFR 1.98(d), copies of these documents need not be filed in this application. If copies of any of these documents cannot be found in the files of the prior applications, the Examiner is requested to so notify counsel before taking action in this case, so replacement copies can be submitted. While an IDS filed under \$1.97 must contain a "list of all patents, publications or other information submitted for

consideration by the Office", see §1.98(a) (1), the only
requirement for the list is that it provide the information set
forth in §1.98(b). There is no requirement that a form PTO-1449 $$
be used (MPEP $\S609$ merely says that use of this form is
"encouraged") and no prohibition on submitting a copy of a form $% \left(\left(\frac{1}{2}\right) \right) =0$
PTO-1449 or form PTO-892 from a prior case. Indeed, the re-use
of such forms is desirable as it avoids error in transferring the $% \left(1\right) =\left(1\right) \left(1\right) \left$
information, and evidences that the reference was considered in
a prior application. A previously accepted PTO-1449, or an
examiner-prepared PTO-892, necessarily complies with §1.98(b).
[] 3. Documents are not in the English language.
In accordance with 1.98(a)(3), Applicants state:
[] documents already contain an English
language abstract, summary or claim set.
[] a publicly available abstract is attached to each of
documents, and the source of each abstract is
indicated thereon.
[] documents are publicly available English
language abstracts of foreign language patents. If the
Examiner would like us to obtain a copy of the
underlying document, with or without a translation,
s/he should contact Counsel.
[] documents are patents or published patent
applications for which counterpart English language
patents or patent applications exist, and are enclosed,
as follows:
Foreign Lang. Doc.# English Lang. Doc.#
[insert] [insert]
[] applicants have prepared an English translation of at
least the pertinent portions of documents,
and copies are attached.
[] A concise explanation of the relevance of documents
is found in the attached search report from
the Patent Office (see reply to Comment 60 in

the preamble to the final rules; 1135 OG 13 at 20).

- [] A concise explanation of the relevance of documents _ ____ appears in the present specification.
- [] A concise explanation of the relevance of documents
 ______ is set forth as follows:

[Insert concise explanation of relevance]

- 4. No explanation of relevance is necessary for documents in the English language (see reply to Comments 67 and 68 in the preamble to the final rules; 1135 OG 13 at 20).
- 5. If the month of publication of a nonpatent reference is not stated, it is because it is not apparent from review of the reference. If requested to do so by the Examiner, Applicants will attempt to locate and write to the publisher.
- If the publication date of a cited document is set forth only as a publication year, and that year is prior to the year of filing or, if priority is claimed, year of priority of this application, then the particular month of publication is not in issue. Likewise if that publication year is after the year of filing of this application, the month of publication is not in issue.
- If the date of publication of a nonpatent reference is stated, then, except as explained below, it is the nominal date stated in the reference, or in a larger document (journal or book) from which the reference was extracted. Applicants reserve the right to challenge this date by contacting the publisher to determine the actual shipment date, or by contacting recipients to determine the receipt dates.
- 6. Other information being provided for the examiner's consideration follows:

[insert other information]

7. In accordance with 37 C.F.R. 1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search has been made or that information cited is, or is considered to be, material to patentability as defined in §1.56 (b), or that any cited document listed or attached is (or constitutes) prior art. Unless otherwise indicated, the date of

USSN - 10/518,056

publication indicated for an item is taken from the face of the item and Applicant reserves the right to prove that the date of publication is in fact different.

8. The Commissioner is hereby authorized and requested to charge any additional fees which may be required in connection with this paper or credit any overpayment to Deposit Account No. 02-4035.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C. Attorneys for Applicant

Accorneys 101 Approcant

Ver P. Cooper Reg. No. 28,005

624 Ninth Street, N.W. Washington, D.C. 20001 Telephone: (202)628-5197 Facsimile: (202)737-3528 IPC:lms (1)1074-1\hoth\pressgarga\potential\hoth\pre

JUN 2 9 2006 Complete if Known Substitute for form 1449A/PTO Application Number 10/518.056 INFORMATION DISCLOSURE October 3, 2005 Filing Date STATEMENT BY APPLICANT FRESKGARD First Named Inventor Group Art Unit (use as many sheets as necessary) Examiner Name Sheet 1 of 2 Attorney Docket Number FRESKGARD=8

	U.S. PATENT DOCUMENTS										
		U.S. Patent	Document	Name of Patentee or Applicant	Date of Publication of	Pages, Columns, Lines,					
Examiner Initials*	Cite No.1	Number	Kind Code ² (if known)	of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear					
	AA	5,047,519		HOBBS, Jr. et al	09-10-1991						
	AB	5,948,648		KHAN et al	09-07-1999						
	AC	6,096,875		KHAN et al	08-01-2000						
	AD	6,197,555	B1	KHAN et al	03-06-2001						
	AE	6,248,568		KHAN et al	06-19-2001						
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				FOREIG	N PATENT DOCUMEN	TS		
Examiner Initials*			Foreign Patent Nu	ımber	Name of Patentee or	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	Cite No.1	Office ³	Number	Kind Code ⁵ (if known)	Applicant of Cited Document			۲
	AF	wo	93/08121	A1	DOWER et al	04-01-1993		П
	AG	wo	00/23458	A1	HARBURY et al	04-27-2000		
	AH	wo	00/61775	A1	SERGEEV	10-19-2000		
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Examiner /Christopher Babic/ Date Considered	10/01/2008
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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /CB/

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

^{**} Unique clution designation number. **See attached Kinds of U.S. Patient Documents. **Enter Office that issued the document. by the two testing code (WIPO Standard ST.3). **For Japanese patient documents, the indication of the year of the stipper must provide the sestion uniter of the patient document. **Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. **Applicant is to place a check-mark here if English language Translation is attack.

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STAT	EMENT BY	ΔΡ	PLICANT	First Named Inventor	FRESKGARD		
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Sheet	2	of	2	Attorney Docket Number	FRESKGARD=8	_	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS										
Cite No.1	Include name of the author (in CAPITAL LETTERS), tille of article (when appropriate), tille of the item (book, magazine, journal, sorial, symposium, catalog, etc.), data, page(s), volume-issue number(s), publisher, city and/or county where publisher.										
AJ	BRENNER, Sydney and Richard A, LERNER. "Encoded Combinatorial Chemistry," Proc. Natl. Acad. Sci. USA, Vol. 89, pp. 5381-5383, June 1992.										
AK	BRUICK, Richard K. et al. "Template-Directed Ligation of Peptides to Oltgonucleotides," Chemistry and Biology 1996, Vol 3 No 1.										
AL	VISSCHER, J. and Alan W. SCWARTZ. "Template-Directed Synthesis of Acyclic Oligonucleotide Analogues," J. Mol Evol. (1988) 28:3-6.										
AM	WALDER, Joseph A. et al. "Complementary carrier Peptide Synthesis: General Strategy and Implications for Prabidic Origin of Peptide Synthesis," Department of Chemistry, and Department of Biochemistry and Molecular Biology, Northwestern University, Evanston, Illinois 60201.										
	AK AL AM	Cite No.¹ Include name of the author (in CAPITAL LETTERS), tills of article (when appropriate), title of the lenn (Book, magazine, journal, sortal, symposium, cotalog, etc.), dette, page(s), volume-issue number(s). All BRENER, Sydney and Richard A, LERNER. "Encoded Combinatorial Chemistry," Proc. Natl. Acad. Sci. USA, Vol. 89, pp. 5381-5383, June 1992. AK BRUICK, Richard K. et al. "Template-Directed Ligation of Peptides to Oligonucleotides," *Chemistry and Biology 1996, Vol. 3 No. 1. AL VISCHER, J. and Alan W. SCWARTZ. "Template-Directed Synthesis of Acyclic Oligonucleotide Analogues," J Mol Evol (1998) 26:3-6. AM WALDER, Joseph A, et al. "Complementary carrier Peptide Synthesis: General Strategy and Implications for Problotic Origin of Peptide Synthesis." Department of Chemistry, and Department of Biochemistry and Modecular Biology, Northwestern University, Evanston, Illinols 50201.									

Examiner Signature	/Christopher Babic/	Date Considered	10/01/2008

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /CB/

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 1 OF 3 FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE SERIAL NO: 10/518,056 ATTY DOCKET NO: ERESKGARD=8 PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT APPLICANT: FRESKGARD et al. LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary) FILING DATE: October 3, 2005 GROUP: U.S. PATENT DOCUMENTS (include at least patentee, patent number and issue date) EXAMINER SUB-FILING DATE INITIAL DOCUMENT NUMBER DATE PATENTEE CLASS CLASS IE APPROP Aug 6, 2002 C Kurz, M et al. 6 BB Mar 27, 2001 Szostak, J et al. BĈ Nov 7, 2000 Baskerville, DS et al. BD May 28, 1998 Taussig, MJ et 2002 al 00 04 Jan 2, 2003 Beigelman et al. April 4, 2001 Apr 2, 1993 Sugarman et al. BG 0 Jun 17, 1997 Dower et al. BH Sep 9, 1997 6 6 5 9 5 Kedar et al. RI 5 n A 1 -5 3 Jan 13, 1998 Dower et al. BJ 7 0 3 5 Jun 23, 1998 Dower et al BK Aug 4, 1998 Dower et al. May 2, 2000 -6 6 Sugarman et al BM 0 9 Oct 31, 2000 Sept 11, 1998 Dower et al. BN 6 4 3 9 Nov 2, 2000 Dec 26, 2000 - 1 4 Dower et al Mar 6, 1998 RΩ Dower et al. May 13, 1998 Dec 26, 2000 Jul 2, 1998 Kedar et al. BO 6 July 9, 2002 Feb 24, 1999 Dower et al BR 8 4 -2 2 3 1 April 18, 1989 Watson et al. FOREIGN PATENT DOCUMENTS (include at least document number, publication date and country) DOCUMENT NUMBER DATE COUNTRY CLASS SUB-TRANSLATION CLASS YES/NO 23 July 1998 PCT 8 June 2000 17 Aug 2000 BU BV 31 May 1990 n 5 7 R -5 PC ō À 6 July 1994 ΕP 9 11 May 1995 PCT _ EP 14 May 1997 ō 6 3 3 4 June 1997 EP CA 0 0 -- 3 4 5 Я 27 April 2000 PCT СВ 20 04 01 6 6 26 Feb 2004 CC 4 PCT 25 April 1996 05 00 8 13 Jan 2005 /Christopher Babic/ 10/01/2008 EXAMINER DATE CONSIDERED EXAMINER: Initial if reference considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				SHEET 2 OF 3			
	U.S. DEPARTMENT OF COMMERCE RADEMARK OFFICE	АТТ	Y DOCKET NO: FRESKGARD=8	SERIAL NO: 10/518,056			
LIST OF DOCUM	DISCLOSURE STATEMENT MENTS CITED BY APPLICANT Bets If necessary)	APPLICANT: FRESKGARD, et al.					
		FILI	NG DATE: October 3, 2005	GROUP:			
OTHER DOCUM	ENTS (include author, title, name of publication, vo	olume.	pages & date of publication)				
CE	Nemoto, N et al. "In vitro virus: bonding of mRNA on the ribosome in vitro". FEBS Lett. 1997 Sep 8	beari	ng puromycin at the 3'-terminal end to the C-t	erminal end of its encoded protein			
CF	Roberts, RW et al. "RNA-peptide fusions for the 11;94(23):12297-302.	in vitro	selection of peptides and proteins". Proc Nat	Acad Sci U S A. 1997 Nov			
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СН	Kurz, M et al. "Psoralen photo-crosslinked mRNA mRNA-protein fusions, Nucleic Acids Res. 2000	Sep 1	5;28(18):E83.				
CI	Benner, SA. "Expanding the genetic lexicon: inco Trends Biotechnol. 1994 May;12(5):158-63	orporal	ting non-standard amino acids into proteins by	ribosome-based synthesis".			
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СМ	Liu, R et al. "Optimized synthesis of RNA-protein	fusion	ns for in vitro protein selection". Methods Enzy	mol. 2000;318:268-93.			
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СТ	Rosenbaum, DM et al. "Efficient and sequence-s J. AM. CHEM. SOC. Vol. 125, No. 46, 2003, 139	specific 924-13	c DNA-templated polymerization of peptide nu 925.	cleic acid aldehydes".			
CU	Li, X et al. "Stereoselectivity in DNA-templated or 10189.	rganic	synthesis and its origins*. J. AM. CHEM. SOC	. Vol. 125, No. 34, 2003, 10188-			
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cw	Otto, S et al. S*Recent developments in dynamic	comb	inatorial chemistry". Current opinion in Chemi	cal Biology 2002, 6: 321-327.			
сх	Pavia, MR. The Chemical generation of molecul	lar dive	ersity". http://www.netsci.org/Science/Combich	em/feature01.html			
EXAMINER	/Christopher Babic/		DATE CONSIDERED 10/01/2008				
EXAMINER: Init	ial if reference considered. Draw line through citation to applicant.	ion if n		e copy of this form			

	U.S. DEPARTMENT OF COMMERCE RADEMARK OFFICE	ATTY DOCKET NO: FRESKGARD=8	SERIAL NO: 10/518,056
LIST OF DOCUM	DISCLOSURE STATEMENT MENTS CITED BY APPLICANT meets if necessary)	APPLICANT: FRESKGARD, et al.	
		FILING DATE: October 3, 2005	GROUP:
CY	Braun, E, et al. *DNA-templated assembly and el 775-778.	electrode attachment of a conducting silver wire". Nat	ture, Vol. 391, 19 February 1998,
CZ		side for alternative DNA base pairing through me	tal complexation" J. Org. Chem.
DA	Weizman, H et al. "2,2"-Bipyridine ligandoside: Am. Chem. Soc. 2001, 123, 3375-3376.	: a novel building block for modifying DNA with in	ntra-duplex metal complexes". J.
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DF	Ohlmeyer, MHJ et al. "Complex synthetic chemic 10922-10926, Dec. 1993, Chemistry.	cal libraries indexed with molecular tags". Proc. Natl.	. Acad, Sci, USA, Vol. 90, pp.
DG	Zuckermann, RN et al. "Discovery of nanomolar (substituted) glycine peptoid library". J. Med. Che	ligands for 7-transmembrane G-protein-coupled reciem. 1994, 37, 2678-2685.	eptors from a diverse N-
DH	Luo, P et al. "Analysis of the structure and stabili in catalytic template-directed synthesis", J. Am. C	lity of a backbone-modified oligonucleotide: implication Chem, Soc. 1998, 120, 3019-3031	ons for avoiding product inhibition
DI		nd exponential amplification of DNA analogues". Nati	ure, Vol. 396, 19 November 1998,
DJ	Klekota, B et al. "Selection of DNA-Binding Com-	npounds via Multistage Molecular Evolution". Tetrahe	edron 55 (1999) 11687-11697.
D●	Furlan, RLE et al. "Molecular amplification in a d 1761-1762.	dynamic combinatorial library using non-covalent inte	ractions*. Chem. Commun., 2000,
DG	Ramström, O et al. "In situ generation and screen ChemBioChem, 2000, 1, 41-48.	ening of a dynamic combinatorial carbohydrate library	y against concanavalin A".
DM	Cousins, GRL et al. "Identification and Isolation of peptide Dynamic Combinatorial Library". Angew.	of a Receptor for N-Methyl Alkylammonium Salts: Mo . Chem. Int. Ed., 2001, 40, No. 2, 423-427.	olecular Amplification in a Pseudo-
DN	Roberts, SI et al. "Simultaneous selection, amplii ammonium ion template". Chem. Commun., 200	ification and isolation of a pseudo-peptide receptor b	y an immobilised N-methyl
D&	Eighanian, R et al. "Selective colorimetric detecti nanoparticles". Science, Vol. 277, 22 August 199	tion of polynucleotides based on the distance-dependent	dent optical properties of gold
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FORM PTO-1- PATENT AND	149 U TRADE	.S. DE	PART	MENT	OF C	WAL	HELF CO.	,	ATTY DOCKET NO: FRESKGARD=8 SERIAL NO: 10/518,056				
INFORMATION DISCLOSURE STATEMENT LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)									APPLICANT: FRESKGARD, et al.				
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	EA	20	05	00	42	6	6	9	Published 24 February 2005	Liu, David R			
	EB	20	05	00	25	7	6	6	Published 3 February 2005	Liu, David R			
FOREIGN PA	TENT D	OCUM	IENTS	(inclu	de at l	east c	locum	ent nu	mber. publication	date and country)			
				DOCU					DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES/NO
	EC	20	04	09	9	4	4	1	18 Nov 2004	PCT			
	ED	03	0	8	2	9	0	1	9 Oct 2003	PCT			
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	EF	20	05	02	6	3	8	7	24 March 2005	PCT			
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	EG	l "The	Nucle	eus". Ja	nuary	2004.	Vol. L	XXXII, ", p10-	No. 5. R. Grubina:	*Summer Research	Report: R. G	rubina on DNA	Templated
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INFORMATION DISCLOSURE STATEMENT LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)	APPLICANT: FRESKGARD, et al.	APPLICANT: FRESKGARD, et al.					
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